

FIGURE 1

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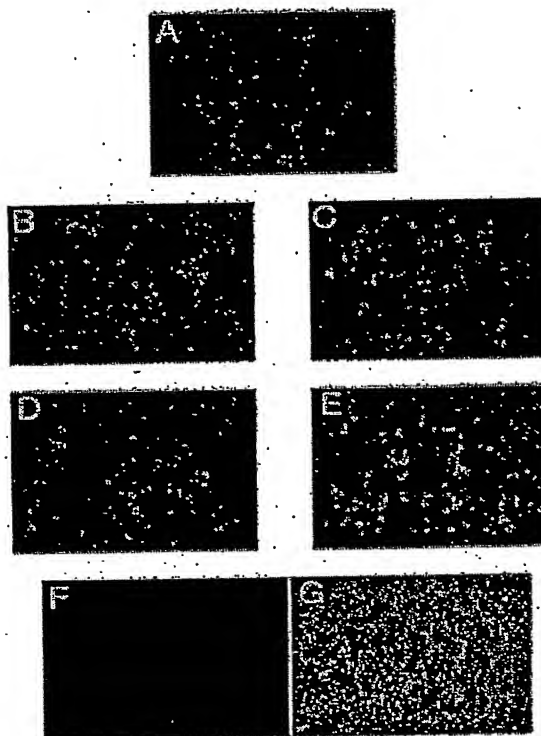


FIGURE 2

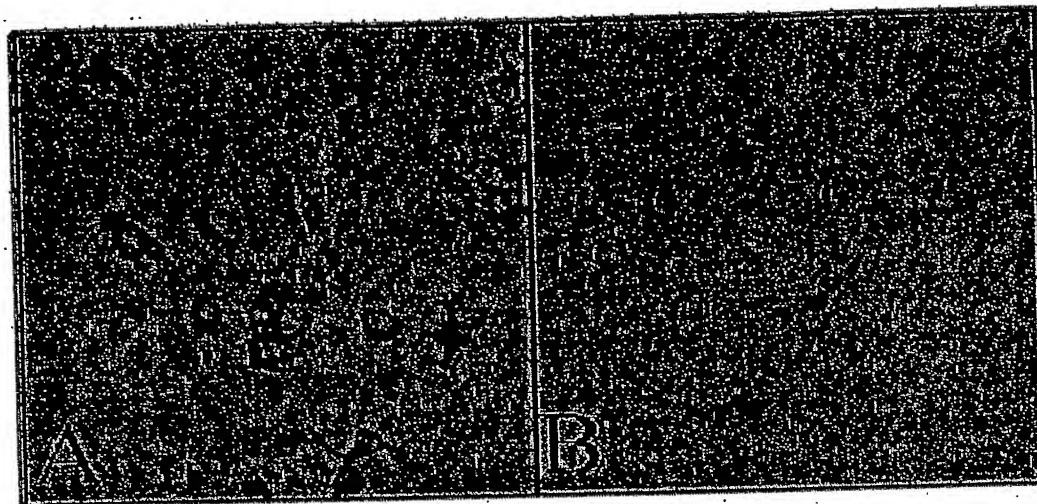


FIGURE 3

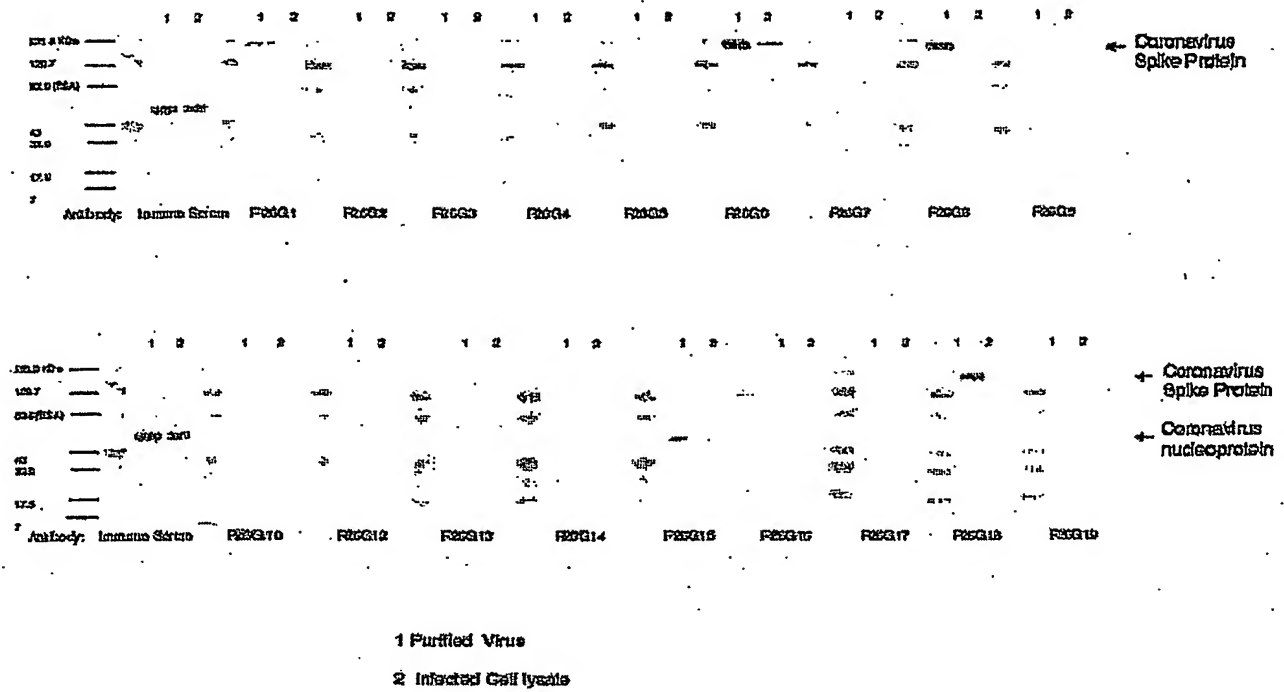


FIGURE 4

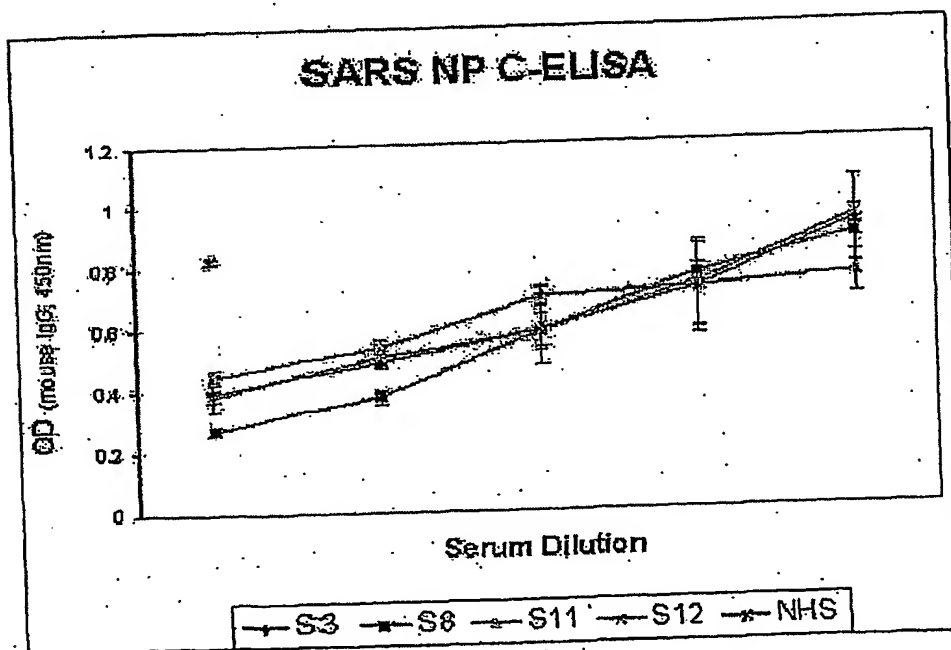
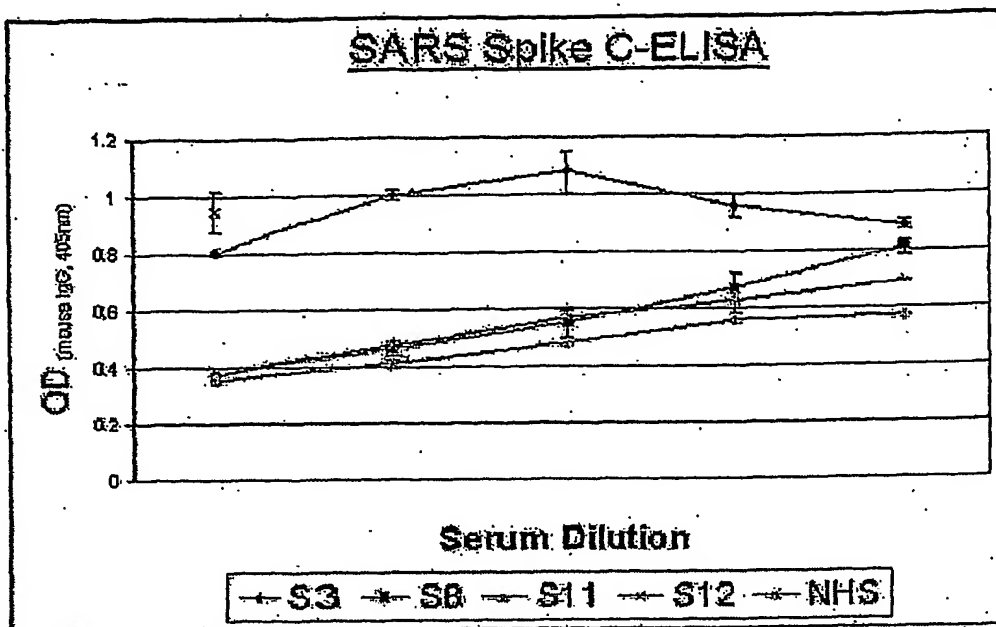


FIGURE 5

SARS CoV mAb V_L alignment

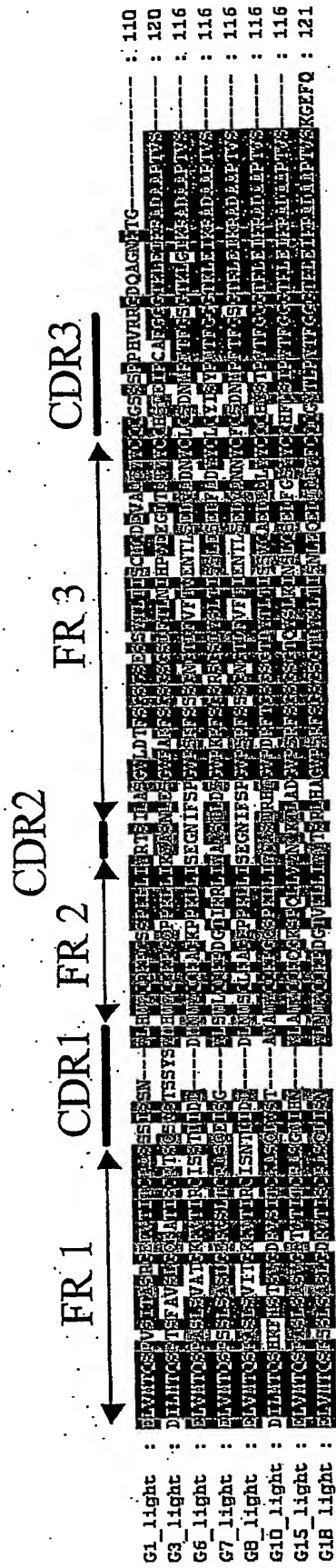


FIGURE 6A

SARS CoV mAb V_H alignment

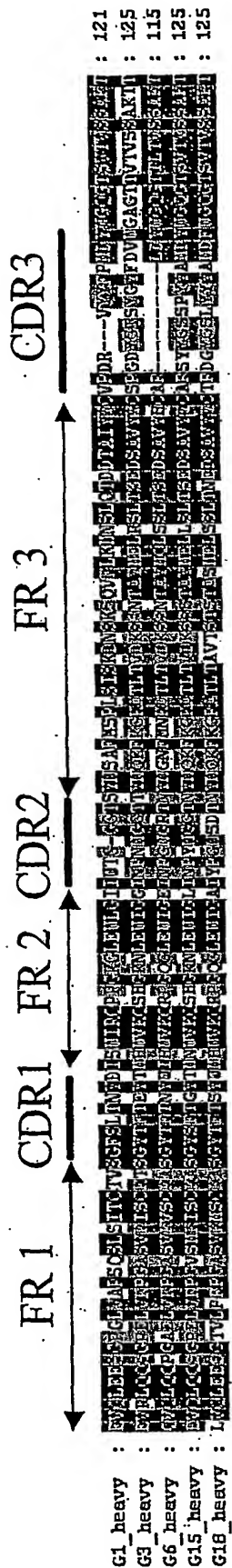


FIGURE 6 B

SARS-specific monoclonal antibodies, Heavy chains (VH), amino acid sequences

F26G3-VH

EVRLQQSGPELVKPGASVKISCKTSGYTFTEYTMHWVKQSHGKNLEWIGGINPNNGGTTYNQKFKG
KATLTVDKSSNTAYMELRSLTSEDSAVYYCSRGDYGTSGYFDVWGAGTTVTVSSAKTTAPSVYPL
A

F26G7-VH

VELLESGTVLARPGASVKMSCEASGYTFTTYWMHWIKQRPQGQLEWIGAIYPGNSDTTYNQKFKGK
AKLTAVTSTSTAYMELSSLTNEDSAVYYCTREGIPQLLRMDYWGQGTSTTVSSAKTTPPSV

F26G9-VH

VQLEESGTVLARPGASVKMSCKASGYSFTSYWMHWVKQRPQGQLEWIGAIYPGNSDTSYNQKFKGK
AKLTAVTSASTAYMELSSLTNEDSAVYYCTRSVYYGYGYFDVWGAGTTVTVSSAKTTPPSV

F26G10-VH

EVQLEESGTVLARPGASVKMSCKASGYSFTSYWMHWVKQRPQGQGLDWIGAIYPENS DTSYNQKFKG
KAKLTAVTSASTAYMEHSSLTNEDSAVYYCTRSVYYGYGYFDVWGAGTTVTVSSAKTTAPSVYPLA
PVC GDTTGSSVTLGCLVKGYFPEPVTLTWNSGSLSSGVHTFPAVLQSDLYTLSSSVTVTSSTWPSQ
SITCNVAHPASSTKVDKKIEPRVPTSQN

F26G18-VH

LVQLEESGTVLPRPGASVKMSCKASGYTFTSYWMHWVKQRPQGQLEWIGAIYPGNSDTNYNQKFKG
RATLTAVTSTSTASMELSSLTNEDSAVYYCTRDGYGSLYYYAMDFWGQGTSTTVSSAKTTAPSVK

F26G19-VH

EVQLEESGTVLARPGASVKMSCKASGYTFTTYRMHWIKQRPQGQLEWIGAIYPGNSDTTYNQKFKD
KAKLTAVTSTSSAYMELSSLTNEDSAVYFCTREGIPQLLRDL DYWGQGTSTTVSSAKTTAPSVYPL
A

F26G1-VH

EVQLEESGPGLVAPSQSL SITCTVSGFSLTNYDISWIRQPPGKGLEWLGI IWTGGGTSYNSAFMSR
LSISKDNSKSQVFLKMNSLQTD DTAIYYCVRDRVYYFPM DYWGQGTSTTVSSAKTTAPSVYPLA

F26G6-VH

MEWSWVFLFLVATATDVHSQVQLQQPGAELVKPGASVKVSKASGYTFTNYWIHWVKQRPQGQLEW
IGEINPGNGRTNYNGNFMNKATLTVDKSSNTAYMQLSSLTSEDSAVYH CARLDYWGQGTTLTVSSA
KTTPPSV

F26G8-VH

VQLEESGAELVKPGASVKVSKASGYTFTSYWIHWVKQRPQGQLEWIGEINPSNGRTNYNGNFESK
ATLTVDKSSNTAYMHLSSLTYEDSAVYHCTRLDYWGQGTTLTVSSAKTTAPSVYPLA

Neutralizing mAbs are in **bold text**.

FIGURE 7

SARS-specific monoclonal antibodies, Light chains (VL), amino acid sequences

F26G3-VL

DILMTQSP^{**TS**}FAVSLGQRATISCR^{**TS**}QSVSTSSYSYMH^{**WY**}Q^{**Q**}KPGQPPKLLIKYASNLESGV^{**PAR**}F
SGSGSGSDFTLNHPVEEGDTATYYCQHSWEIPCAFGGG**TKLEIKRADAAPT**VS

F26G7-VL

ELVMTQSPSSLSASLGERVSLTCRASQEISGYLSWLQ^{**Q**}KPDGTIKRLIYAAS**TLD**SGV**PKR**FSGSR
SGSDYSLTISSELEDFADYYCLQYISYPWTFGGG**TKLEIKRADAAPT**VS

F26G9-VL

DILMTQSHKCMSTSVGDRVSITCKASQDVSTAVVWYQ^{**Q**}KPGQFPKLLIYWASTRHTGVPDR**FT**GSG
SGTDYTLTISSVQAEDLALYYCQ^{**Q**}HYTTPYTFGGG**TKLEIKRADAAPT**VS

F26G10-VL

DILMTQSHKFMSTSVGDRVSITCKASQDVSTAVAWYQ^{**Q**}KPGQSPKLLIYWASTRHTGVPDR**FT**GSG
SGTDYTLTISSVQAEDLALYYCQ^{**Q**}HYSTPYTFGGG**TKLEIKRADAAPT**VS

F26G18-VL

ELVMTQSPSSLSASLGDRVTISCRASQDISNYLNWYQ^{**Q**}KPDGTVKLLIYYTSRLHAGVPSR**FS**GSG
SGTDYSLTISNLEQEDIATYFCQ^{**Q**}GYTLPYTFGGG**TKLEIKRADAAPT**VS**KGEFQHTGGR**

F26G19-VL

DILMTQSPSSLSASLGERVSLTCRASQEISGYLSWLQEKPDGTIKRLIYAAS**TLD**SGV**PKR**FSGSR
SGSDYSLTISSELEDFADYYCLQYVSYPWTFGGG**TKLEIKRADAAPT**V

F26G1-VL

ELVMTQSPVSITASRGEKVTITCRASSSISSNYLHWYQ^{**Q**}KPGSSPKLLIYRTSILASGVLD**TF**GSG
GSESSYTLTISCMQDEVAATYYCQ^{**Q**}GSSSPPHVRRGDQAG**NKT**G

F26G6-VL

ELVMTQSPASLSVATGKKVTIRCISSTDIDDDMNWYQ^{**Q**}KAGKPPKLLISEGNIFSPGVPSR**FS**SSG
NGTDFVFTVENTLSE**D**VADNYCLQSDNMP**FT**FGSGTKLG**IKRADAAPT**VS

F26G8-VL

ELVMTQSPASLSVITGKKVTIRCISNTDIDDDLNWSQLKAGEPPKLLISEGNIFSPGVPSR**FS**SSG
NGTDFVFTIENTLSE**D**VANNYCFQSDNMP**FT**FGSGTKLE**IKRADAAPT**VS

Neutralizing mAbs are in bold text.

FIGURE 8

SARS-specific monoclonal antibodies, Heavy chains (VH), nucleotide sequences

F26G3-VH

ATGGAATGGAGCTGGGTCTTTCTCTTTCTCTCTGTCAGGAACTGCAGGTGTCCTCTCTGAGGTCCGG
 CTGCAACAGTCTGGACCTGAACTGGTGAAGCCTGGGGCTTCAGTGAAGATATCCTGCAAGACTTCT
 GGATACACATTCACTGAATACACCATGCAGTGGGTGAAGCAGAGCCATGGAAAGAACCTTGAGTGG
 ATTGGAGGTATTAATCCTAATAATGGTGGTACTACCTACAACCAGAAGTTTAAGGGCAAGGCCACA
 TTGACTGTAGACAAGTCTTCCAACACAGCCTACATGGAGCTCCGCAGCCTGACATCTGAGGATTCT
 GCAGTCTATTATTGTTCAAGAGGGGACTACGGTACTAGCTACGGGTACTTCGATGTCTGGGGCGCA
 GGGACCACGGTCACCGTCTCCTCAGCCAAAACAACAGCCCCATCGGTCTATCCACTGGCCA

F26G7-VH

GTGGAGCTGCTCGAGTCAGGGACTGTGCTGGCAAGGCCTGGGGCTTCAGTGAAGATGTCCTGCGAG
 GCTTCTGGCTACACCTTTACCACCTACTGGATGCAGTGGATAAAACAGAGGCCTGGACAGGGTCTG
 GAATGGATTGGCGCTATTTATCCAGGAAATAGTGATACTACCTACAACCAGAAGTTCAAGGGCAAG
 GCCAACTGACTGCAGTCACATCCACCAGCACTGCCACATGGAGCTCAGCAGCCTGACAAATGAG
 GACTCTGCGGTCTATTACTGTACAAGAGAGGGAATTCCTCAATTACTTCGGACTATGGACTACTGG
 GGTCAAGGGACCTCAGTCACCGTCTCCTCAGCCAAACAACACCCCCATCGGTCA

F26G9-VH

GTCCAGTCTGCTCGAGTCTGGGACTGTGCTGGCAAGGCCTGGGGCTTCCTGTAAGATGTCCTGCAAG
 GCTTCTGGCTACAGCTTTACCAGCTACTGGATGCAGTGGGTAAAACAGAGGCCTGGACAGGGTCTA
 GAATGGATTGGTGCTATTTATCCTGGAAATAGTGATACTAGCTACAACCAGAAGTTCAAGGGCAAG
 GCCAACTGACTGCAGTCACATCCGCCAGTACTGCCACATGGAGCTCAGCAGCCTGACAAATGAG
 GACTCTGCGGTCTATTACTGTACAAGATCCGTTTACTACGGCTACGGGTACTTCGATGTCTGGGGC
 GCAGGGACCACGGTCACCGTCTCCTCAGCCAAAACAACACCCCCATCGGTCT

F26G10-VH

GAGGTGCAGCTGGAGGAGTCTGGGACTGTGCTGGCAAGGCCTGGGGCTTCCTGTAAGATGTCCTGC
 AAGGCTTCTGGCTACAGCTTTACCAGCTACTGGATGCAGTGGGTAAAACAGAGGCCTGGACAGGGT
 CTAGATTGGATTGGTGCTATTTATCCTGAAAATAGTGATACTAGCTACAACCAGAAGTTCAAGGGC
 AAGGCCAACTGACTGCAGTCACATCCGCCAGTACTGCCACATGGAGCACAGCAGCCTGACAAAT
 GAGGACTCTGCGGTCTATTACTGTACAAGATCCGTCTTACTACGGCTACGGGTACTTCGATGTCTGG
 GGCGCAGGGACCACGGTCACCGTCTCCTCAGCCAAAGACAACAGCCCCATCGGTCTATCCACTGGCC
 CCTGTGTGTGGAGATACAACCTGGCTCCTCGGTGACTCTAGGATGCCTGGTCAAGGGTTATTTCCCT
 GAGCCAGTGACCTTGACCTGGAACCTCTGGATCCCTGTCCAGTGGTGTGCACACCTTCCCAGCTGTC
 CTGCAGTCTGACCTCTACACCCTCAGCAGCTCAGTGACTGTAACCTCGAGCACCTGGCCCAGCCAG
 TCCATCACCTGCAATGTGGCCACCCGGCAAGCAGCACCAAGGTGGACAAGAAAATTGAGCCCAGA
 GTGCCCACTAGTCAGAAC

F26G18-VH

TTGGTGCAGCTGGAGGAGTCTGGGACTGTGTTGCCAAGGCCTGGGGCTTCAGTGAAGATGTCCTGC
 AAGGCTTCTGGCTACACCTTTACCAGCTACTGGATGCAGTGGGTAAAACAGAGGCCTGGACAGGGT
 CTGGAATGGATTGGCGCTATTTATCCTGGAAATAGTGATACTAAGTACAACCAGAAGTTCAAGGGC
 AGGGCCACACTGACTGCAGTCACATCCACCAGCACATGCCTCCATGGAGCTCAGCAGCCTGACAAAT
 GAGGACTCTGCGGTCTATTACTGTACAAGAGACGGCTATGGTAGCCTTTATTACTATGCTATGGAC
 TTCTGGGGTCAAGGAACCTCAGTCACCGTCTCCTCAGCCAAAACAACAGCCCCATCGGTCAAGGGC
 GA

FIGURE 9 -1

F26G19-VH

GAGGTGCAGCTGGAGGAGTCTGGGACTGTGCTGGCAAGGCCTGGGGCTTCAGTGAAGATGTCCTGC
AAGGCTTCTGGCTACACCTTTACCACCTACCGGATGCACTGGATAAAACAGAGGCCTGGACAGGGT
CTGGAATGGATTGGCGCTATTTATCCTGGAAATAGTGATACTACCTACAACCAGAAGTTCAAGGAC
AAGGCCAAACTGACTGCAGTCACATCCACCAGCTCTGCCTACATGGAGCTCAGCAGCCTGACAAAT
GAGGACTCTGCGGTCTATTTCTGTACAAGAGAGGGAATTCCTCAATTACTTCGGACTTTGGACTAC
TGGGGTCAAGGAACCTCAGTCACCGTCTCCTCAGCCAAAACAACAGCCCCATCGGTCTATCCACTG
GCC

F26G1-VH

TGAGGTGCAGCTGGAGGAGT CAGGACCTGGCCTGGTGGCGCCCTCACAGAGCCTGTCCATTACCTG
CACTGTCTCTGGGTTCTCATTAACGAACATATGATATAAGCTGGATTTCGCCAGCCACCAGGAAAGGG
TCTGGAGTGGCTTGGAATAATATGGACTGGTGGAGGCACAAGTTATAATTCAGCTTTCATGTCCAG
ACTGAGCATCAGCAAGGACAACCTCCAAGAGCCAAGTTTCTTAAAAATGAACAGTCTGCAAACTGA
TGACACAGCCATATATTACTGTGTAAGAGATAGGGTCTACTACTTCCCTATGGACTACTGGGGTCA
AGGAACCTCAGTCACCGTCTCCTCAGCCAAAACAACAGCCCCATCGGTCTATCCACTGGCCA

F26G6-VH

ATGGAATGGAGCTGGGTCTTTCTCTTTTTGGTAGCAACAGCTACAGATGTCCACTCCCAGGTCCAA
CTGCAGCAGCCTGGGGCTGAACTGGTGAAGCCTGGGGCTTCAGTGAAAGTGTCTTGCAAGGCTTCT
GGCTACACCTTCACCAACTACTGGATACACTGGGTGAAGCAGAGGCCTGGACAGGGCCTTGAGTGG
ATTGGAGAGATTAACTCTGGCAACGGTCGTACTAATAATGGGAACCTTCATGAACAAGGCCACA
CTGACTGTAGACAAATCCTCCAACACAGCCTACATGCAACTCAGCAGCCTGACATCTGAGGACTCT
GCGGTCTATCACTGTGCAAGATTAGACTACTGGGGCCAAGGCACCACTCTCACAGTCTCCTCAGCC
AAAACAACACCCCCATCGGTCT

F26G8-VH

GTCCAGCTGCTCGAGTCTGGGGCTGAACTGGTGAAGCCTGGGGCTTCAGTGAAAGTGTCTTGCAAG
GCTTCTGGCTACACCTTCACCAGCTACTGGATACACTGGGTGAAGCAGAGGCCTGGACAGGGCCTT
GAGTGGATTGGAGAGATTAACTCTAGCAACGGTCGTACTAATAATGGGAACCTTCAGAGCAAG
GCCACACTGACTGTAGACAAATCCTCCAACACAGCCTACATGCACCTCAGCAGCCTGACATATGAG
GACTCTGCGGTCTATCACTGTACAAGATTAGACTACTGGGGCCAAGGCACCACTCTCACAGTCTCC
TCAGCCAAAACAACAGCCCCATCGGTCTATCCACTGGCC

Neutralizing mAbs are in **bold text**.

FIGURE 9-2

SARS-specific monoclonal antibodies, Light chains (VL), nucleotide sequences

F26G3-VL

GGGCCCAGCCGGCCGAGCTCGACATTCTGATGACCCAGTCTCCTACTTCCTTTGCTGTATCTCTGG
GGCAGAGGGCCACCATCTCATGTCAGGACCAGCCAAAGTGTGAGTACATCTAGCTATAGTTATATGC
ACTGGTACCAACAGAAACCAGGACAGCCACCACAACTCCTCATCAAGTATGCATCCAACCTAGAAT
CTGGGGTCCCTGCCAGGTTGAGTGGCAGTGGGTCTGGGTGAGACTTCACCCTCAACATCCATCCTG
TGGAGGAGGGGGATACTGCAACATATTACTGTCAGCACAGTTGGGAGATTCCGTGCGCGTTCGGAG
GGGGGACCAAGCTGGAAATAAAACGGGCTGATGCTGCACCAACTGTATCC

F26G7-VL

GTGCCAGATGTGAGCTCGTGATGACCCAGTCTCCATCCTCCTTATCTGCCTCTCTGGGAGAAAGAG
TCAGTCTCACTTGTCTGGGCAAGTCAGGAAATTAGTGGTTATTTAAGCTGGCTTCAGCAGAAACCAG
ATGGAACATATAAACGCCCTGATCTACGCCGATCCACTTTAGATTCCGGGTGTCCCAAAAAGGTTCA
GTGGCAGTAGGTCTGGGTGAGTATTCTCTCACCATCAGCAGCCTTGAGTCTGAAGATTTTGCAG
ACTATTACTGTCTACAATATATTAGTTATCCGTGGACGTTTCGGGGGAGGTACCAAGCTGGAAATCA
AACGGGCTGATGCTGCACCAACTGTATCC

F26G9-VL

GACATTCTGATGACCCAGTCTCACAATGTCATGTCCACATCAGTAGGAGACAGGGTCAGCATCACC
TGCAAGGCCAGTCAGGATGTGAGTACTGCTGTAGTCTGGTATCAACAAAAACCAGGGCAATTTCTT
AACTACTGATTTACTGGGCATCCACCCGGCACACTGGAGTCCCTGATCGCTTCACAGGCAGTGGG
TCTGGGACAGATTATACTCTCACCATCAGCAGTGTGCAGGCTGAAGACCTGGCACTTTATTACTGT
CAGCAACATTATACCACTCCGTACACGTTTCGGAGGGGGGACCAAGCTGGAAATAAAACGGGCTGAT
GCTGCACCAACTGTATCC

F26G10-VL

GGGCCCAGCCGGCCGAGCTCGACATTCTGATGACCCAGTCTCACAATTCATGTCCACATCAGTAG
GAGACAGGGTCAGCATCACCTGCAAGGCCAGTCAGGATGTGAGTACTGCTGTAGCCTGGTATCAAC
AAAAACCAGGGCAATCTCCTAACTACTGATTTACTGGGCATCCACCCGGCACACTGGAGTCCCTG
ATCGCTTCACAGGCAGTGGATCTGGGACAGATTATACTCTCACCATCAGCAGTGTGCAGGCTGAAG
ACCTGGCACTTTATTACTGTGAGCAACATTATAGCACTCCGTACACGTTTCGGAGGGGGGACCAAGC
TGGAATAAAACGGGCTGATGCTGCACCAACTGTATCC

F26G18-VL

GAGCTCGTGATGACCCAGTCTCCATCCTCCCTGTCTGCCTCTCTGGGAGACAGAGTCACCATCAGT
TGCAGGGCAAGTCAGGACATTAGCAATTATTTAAACTGGTATCAGCAGAAACCAGATGGAAGTGT
AACTCCTGATCTATTACACATCAAGATTACACGCAGGAGTCCCATCAAGGTTCAAGTGGCAGTGGG
TCTGGAACAGATTATTCTCTCACCATTAGCAACCTGGAGCAAGAAGATATTGCCACTTACTTTTGC
CAACAGGGTTATACGCTTCCGTACACGTTTCGGAGGGGGGACCAAGCTGGAAATAAAACGGGCTGAT
GCTGCACCAACTGTATCCAA

F26G19-VL

GACATTCTGATGACCCAGTCTCCATCCTCCTTATCTGCCTCTCTGGGAGAAAGAGTCAGTCTCACT
TGTCGGGCAAGTCAGGAAATTAGTGGTTACTTTAAGCTGGCTTCAGGAGAAACCAGATGGAAGTATT
AAACGCCTGATCTACGCCGCTTCCACTTTAGATTCTGGTGTCCCAAAAAGGTTCAAGTGGCAGTAGG
TCTGGGTGAGATTATTCTCTCACCATCAGCAGCCTTGAGTCTGAAGATTTTGCAGACTATTACTGT
CTACAATATGTTAGTTATCCGTGGACGTTTCGGTGGAGGCACCAAGCTGGAAATCAAACGGGCTGAT
GCTGCACCAACTGTA

FIGURE 10-1

F26G1-VL

GTGCCAGATGTGAGCTCGTGATGACCCAGTCTCCAGTATCCATAACTGCATCTCGAGGGGAGAAGG
TCACCATCACCTGCCGTGCCAGCTCAAGTATAAGTTCCAATTACTTACACTGGTACCAGCAGAAGC
CAGGATCCTCCCCTAAACTTTTGATTTATAGGACATCCATCCTGGCATCTGGAGTCCTGGACACCT
TCAGTGGCAGTGGGTCTGAGAGCTCTTACACTCTGACAATCAGCTGCATGCAGGACGAAGTTGCTG
CCACTTACTATTGTGAGCAGGGGAGTAGTAGCCACACACGTTTCGGAGGGGGGACCAAGCTGGAA
ATAAAACGGGCTGATGCTGCACCAACTGTATCCA

F26G6-VL

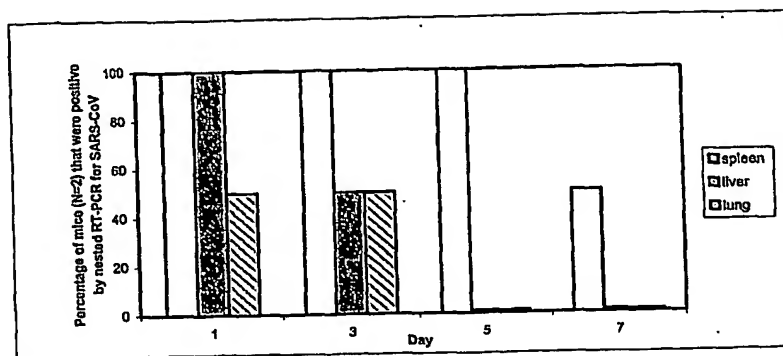
GTGCCAGATGTGAGCTCGTGATGACCCAGTCTCCAGCATCCCTGTCCGTGGCTACAGGAAAAAAG
TCACCATCAGATGCATAAGCAGCACTGACATTGATGATGATATGAACTGGTACCAGCAGAAGGCAG
GAAAACCTCCTAAACTCCTTATTTTCAGAAGGCAATATTTTTAGTCCTGGAGTCCCATCCCGATTCT
CCAGCAGTGGCAATGGCACAGATTTTGTTTTTACAGTTGAAAACACGCTCTCAGAAGATGTTGCAG
ATAACTACTGTTTGCAAAGTGATAACATGCCATTACGTTTCGGCTCGGGGACAAAGTTGGGAATAA
AACGGGCTGATGCTGCACCAACTGTATCC

F26G8-VL

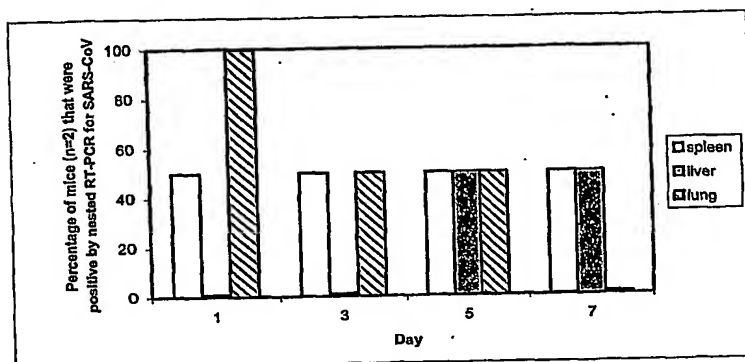
GTGCCAGATGTGAGCTCGTGATGACCCAGTCTCCAGCATCCCTGTCCGTGATTACAGGAAAAAAG
TCACCATCAGATGCATAAGCAACACTGACATTGATGATGATTTGAACTGGTCCCAGCTGAAGGCAG
GAGAACCTCCTAAACTCCTTATTTTCAGAAGGCAATATTTTTAGTCCTGGAGTCCCATCCCGATTCT
CCAGCAGTGGCAATGGCACAGATTTTGTTTTTACAATTGAAAACACGCTCTCAGAAGATGTTGCAA
ATAACTACTGTTTCCAAAGTGATAACATGCCATTACGTTTCGGCTCGGGGACAAAGTTGGAAATAA
AACGGGCTGATGCTGCACCAACTGTATCC

Neutralizing mAbs are in bold text.

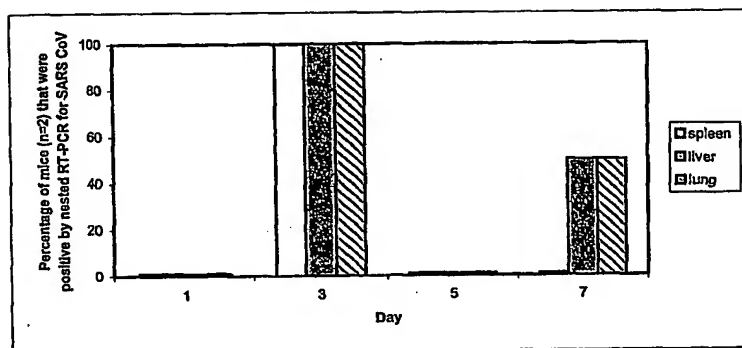
FIGURE 10-2



(A)

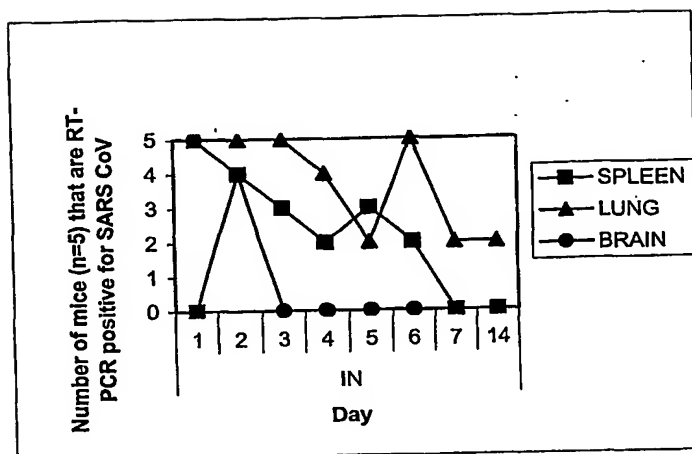


(B)

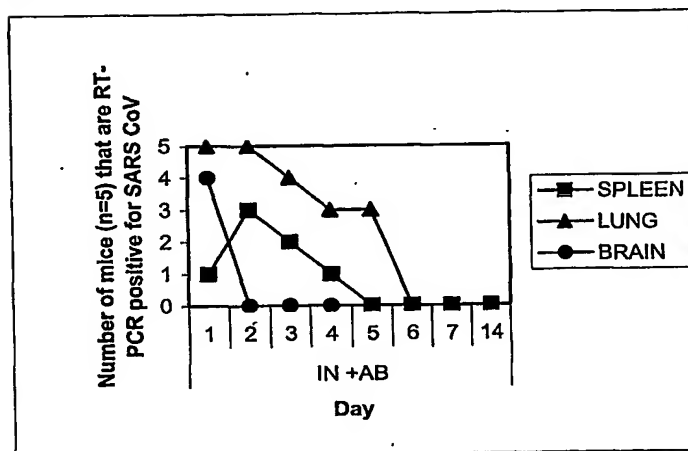


(C)

FIGURE 11



(A)



(B)

Figure 12

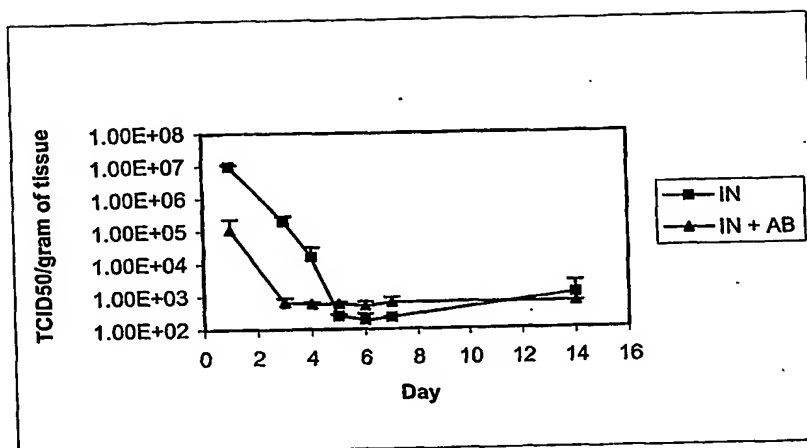


Figure 13

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